IBM Intelligent Water on Cloud helps optimize water utilities operations through a Software-as-a-Service model

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At a glance

The IBM® Intelligent Water on Cloud offering is designed to help you:

- Increase crew productivity by optimizing schedules to enable crews to handle more work orders in the same time frame
- Lower fuel and maintenance costs by using advanced analytics to optimize routes and reduce driving time
- Lower work order backlogs and increase service level quality through a "work while in the neighborhood" strategy
- Increase revenue through targeted pricing models by user segment, especially for high-volume users
- Target conservation efforts during times of water stress, using insights into current, historical, and seasonal usage patterns
- Improve forecasting of future demand and strategic planning accuracy based on analysis of past and present consumption data
- Achieve faster time to value through the SaaS delivery model for quick deployment and rapid user on-boarding

Overview

The IBM Intelligent Water offering is designed to optimize water utilities' operations and to create new opportunities for innovation and business value by delivering insights into a utility's assets and operations. The solution uses advanced analytics and optimization technologies to transform the vast amounts of data from various asset management, global information system (GIS), and metering systems into actionable insight, foresight, and prescriptions that can guide decisions involving strategic assets and field resources, customer satisfaction issues, enterprise process transformation, and business models.

The offering is designed to help utilities to

- Drive down operational costs
- Increase crew productivity and reduce crew labor cost
- Decrease work order backlogs
- Increase the quality of service
- Minimize revenue lost due to malfunctioning assets by enabling crews to respond more quickly and efficiently to open service tickets

- Segment customers to drive targeted rate schedule pricing and to build stronger rate cases with regulators and/or city councils
- Identify high water users to drive focused conservation efforts
- Identify historical and seasonal usage patterns to better forecast demand and drive strategic planning

The offering's subscription service delivers the following benefits compared to a traditional on-premises licensed model:

- Quicker time to value through rapid deployment and on-boarding
- Reduced IT overhead through a hosted model
- Reduced up front costs

For ordering, contact your IBM representative or IBM Americas Call Centers at 800-IBM-CALL (Reference: VE001).

Key prerequisites

This product requires an Internet connection and browser and prerequisite applications as detailed in the Specified operating environment section.

Planned availability date

December 9, 2011

Description

The IBM Intelligent Water on Cloud offering provides intelligence and insight into assets and operations to create a holistic view of water and waste water across departments, silos, and systems. By aggregating, integrating, and visualizing key water data and then applying advanced analytics and optimization methodologies, the solution delivers insights that help reduce costs, recapture revenue, and increase the quality of service of water utilities.

The V1.0 offering comprises IBM Work Optimization for Water Utilities on IBM SmartCloud with Usage Analysis capability.

IBM Work Optimization for Water Utilities on IBM SmartCloud

A significant part of the operational expense of a utility is allocated to sending out crews to maintain, repair, and upgrade its infrastructure. The crews perform critical tasks such as responding to emergency situations, performing preventative maintenance, and performing regular inspections of assets. Given the geographically dispersed nature of the water infrastructure, each work item involves the dispatch of a crew from one or more central stations to the location of the work. In addition, in many cases, each work item is composed of a set of dependent sub-tasks in which each sub-task may require a specific skill (such as hydrant repair or valve inspection) or a specific piece of equipment. Thus, the utility can significantly benefit from analytics that can assign work to maximize utilization of crews and equipment while minimizing "windshield time;" that is, work-related time spent in a vehicle.

IBM Work Optimization for Water Utilities on IBM SmartCloud uses data from enterprise asset management (EAM) systems and geographical information systems (GIS) to run advanced optimization algorithms that:

- Allow the user to select work orders using an interactive GIS interface and assign work orders to one or more crews.

- Can apply manual and semi-automatic selection modes that allow the user to select high-priority work orders that must be completed first. A fully-automatic mode enables the user to have the tool optimize the work schedule.
- Optimize the sequence of work orders such that driving time is minimized and the number of work orders that a crew can address in their shift is maximized.
- Assist the crew in determining the optimal driving route.

The capabilities of automated work scheduling can be used to help perform proactive capacity planning by projecting the actual time and effort needed to complete a set of open work orders through multi-schedule, multi-crew planning exercises.

Usage Analysis

This capability uses analytic models to allow the utility to better understand the usage of water in its network and customer base and to enable better strategic planning via more accurate forecasts of future revenue and demand. Usage Analysis leverages data from the utility's water consumption data and GIS systems to run advanced reports that allow the user to segment the utility's customers based on usage, seasonal water patterns, and peak usage patterns. This segmentation becomes the basis for other activities, such as:

- Demand forecasting
- Conservation efforts
- Rate pricing

Leveraging the benefits of a software as a service model

On-premise installations require resources from IT departments that need to understand the details of the solution components, manage those components, and provide ongoing maintenance of operating system and software patches, fixes, and upgrades. In a SaaS model, most of these burdens are dramatically reduced or eliminated. The IBM Intelligent Water on Cloud offering is hosted and managed by IBM, and cities subscribe to the service and access it through the Internet. This means you are not required to purchase and provision new hardware or worry about ongoing operating system and software maintenance.

With the IBM Intelligent Water on Cloud offfering, provisioning and on-boarding are streamlined. You can derive value from the service much more quickly than a traditional on-premise installation. Connection to the service is as easy as accessing the Internet through a browser, and it can be accessed from anywhere. With lower initial costs and lower long term overhead, your limited budget and resources are freed up to focus on additional value-added services.

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

http://www.ibm.com/able/product_accessibility/index.html

Product positioning

The IBM Intelligent Water on Cloud offering is just one of the IBM Smarter Cities™ SaaS services designed to make cities and government operate more effectively and efficiently--essentially smarter.

IBM offers a suite of Smarter Cities and government solutions and SaaS services that can help cities and government agencies integrate information from disparate, instrumented systems and create an intelligent, interconnected environment that encourages collaboration, enhances efficiencies, and fosters effective decision making.

The IBM Intelligent Water on Cloud offering utilizes IBM Intelligent Operations Center for Cloud to enable real-time communications and collaboration with other city agencies to coordinate actions and resolves issues in an efficient manner.

IBM can help cities optimize individual departments--including buildings, emergency management, energy, operations, public safety, transportation, and water--while facilitating seamless, cross-departmental integration.

Reference information

For information about the enterprise version of the IBM Intelligent Water offering, refer to Software Announcement 211-403, dated November 15, 2011.

For information about IBM Intelligent Operations Center for Cloud, refer to Software Announcement 211-286, dated July 26, 2011.

Program number

```
Program      Program
number       name

5725-D74     IBM Intelligent Water on Cloud
```

Additional information

Following is a list of IBM SmartCloud Data Center locations available at the time of this announcement:

- Boulder, Colorado, USA
- Einhigen, Germany
- Raleigh, North Carolina, USA
- Singapore, Republic of Singapore
- Toronto, Canada
- Tokyo, Japan

For updates to this list, visit

https://www.ibm.com/cloud/enterprise

Offering Information

Product information is available via the Offering Information website

http://www.ibm.com/common/ssi

Also, visit the Passport Advantage® website

http://www.ibm.com/software/passportadvantage

Publications

A Welcome Package is included with the service.

The IBM Smarter Cities Software Solutions Information Center provides an exhaustive set of product documentation. The Information Center is available at

http://publib.boulder.ibm.com/infocenter/cities/v1r0m0/index.jsp

Technical information

Specified operating environment

Hardware requirements

Each client accessing the IBM Intelligent Water on Cloud offering must meet the following hardware requirements:

- A monitor with a minimum of 1280 by 800 resolution
- A workstation with a minimum of 2 GB of memory
- Network access with sufficient bandwidth for complex web client generation and continuous data updates

Software requirements

The IBM Intelligent Water on Cloud offering requires:

- IBM Intelligent Operations Center for Cloud (5725-D72).
- A connection to a geographical information system (GIS) to display map-based information and to enable map-based interaction. A GIS is also required to provide functions such as the time/distance matrix used by IBM Work Optimization for Water Utilities. IBM Intelligent Water V1.0 is designed to support Environmental Systems Research Institute's (ESRI) ArcGIS Version 10.0 with the ArcGIS for Server Network Extension However, a service engagement can be used to enable alternative GIS applications.
- Asset management data necessary to provide asset and operations input to the IBM Work Optimization for Water Utilities analytic and optimization engine.
- Customer usage information necessary to provide water consumption input to the Usage Analysis analytic tools.

Planning information

Packaging

This product is accessed via the Internet. There are no physical or electronic deliverables.

Security, auditability, and control

The IBM Intelligent Water on Cloud offering and its prerequisite software provide the security and auditability features that are necessary for remotely accessible software. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Software Services

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise

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Ordering information

This product is only available via Passport Advantage.

Product Group: Smarter Physical Infrastructure

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    Product       Product
    identifier    identifier description

    5725-D74      IBM Intelligent Water on Cloud
```

Product Category: Smarter Cities

Charge metric

```
                                     Part
Part name                            number    Charge metric


IBM Work Optimization for Water      D0N9MLL   Per Order Request
    Utilities on IBM SmartCloud                per Month
```

Order Request per Month

Order Request per Month is a unit of measure by which the Program can be licensed. An Order Request per Month is a unique order for products or services of Licensee to carry out work that is processed, tracked, or managed by the Program. Licensee must obtain entitlements for the maximum number of Order Requests processed by the Program in any calendar month.

Passport Advantage

```
                                             Part
Program name and description                 number

IBM Work Optimization for Water Utilities on IBM      D0N9MLL
    SmartCloud per Order Request per Month

IBM Work Optimization for Water Utilities on IBM      D0N9NLL
    SmartCloud Daily Fee for Partial Month
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Subscription

This offering requires a customer-signed IBM International Passport Agreement and IBM SaaS Terms of Use Agreement. Refer to the IBM Intelligent Water for Cloud Terms of Use Agreement, which outlines the terms of this offering.

Technical support

Technical support is included with subscriptions purchased through Passport Advantage and Passport Advantage Express® and is provided for this IBM SaaS offering and Enabling Software, as applicable, during the Subscription Period as set forth in their Terms of Use Agreement.

Technical support is included with the IBM SaaS and is not available as a separate offering.

Terms of Use

The program's Terms of Use document is available on the IBM Software as a Service Terms of Use website.

   http://www.ibm.com/software/sla/sladb.nsf/sla/tou

A Welcome Package is included with the service. The IBM Intelligent Water offering information center provides an exhaustive set of product documentation. The information center is available at the following website.

   http://publib.boulder.ibm.com/infocenter/cities/v1r0m0/index.jsp

Limited warranty applies

Yes

Limited warranty

IBM warrants that IBM Intelligent Operations Center for Cloud will conform to the specifications contained in the Terms of Use Agreement. Such specifications may be supplied only in the English language, unless required by local law, without the possibility of contractual waiver or limitation. The warranty will not apply to the extent that there has been misuse, accident, modification, unsuitable physical or operating environment, or improper maintenance by Customer or a third party, or failure or damage caused by a product for which IBM is not responsible. IBM does not warrant uninterrupted or error-free operation of the service or that IBM will correct all defects. You are responsible for the results obtained from the service.

Volume orders (IVO)

No

Passport Advantage applies

Yes, and through the Passport Advantage website at

   http://www.ibm.com/software/passportadvantage

IBM Operational Support Services - SoftwareXcel

No

System i Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

Not applicable.

Prices

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